

AMENDMENT TO THE CLAIMS

1-11. (Canceled)

12. (Previously Presented) An optimal recording method for optical recording media comprising the steps of:

(a) reading out a reference power value recorded on an optical recording medium;

(b) recording optional data, as test data, onto a first field of a test area in the optical recording medium while varying a recording power value with reference to the read reference power;

(c) reproducing the test data recorded on the first field, thereby determining an optimum recording power value, based on characteristics of the resultant reproduced signals;

(d) recording optional data, as test data, onto a second field of the test area while varying a format of recording signals, using the determined optimum recording power value; and

(e) reproducing the test data, recorded on the second field in accordance with the varied recording signal format, determining an optimum write strategy based on characteristics of the resultant reproduced signals, and storing the optimum write strategy.

13. (Previously Presented) An optimal recording apparatus for optical recording media comprising:

a recording unit recording optional data, as test data, onto a test area of an optical recording medium while varying a format of recording signals;

a reproduction unit reproducing the test data;

a jitter measuring unit measuring respective jitters of reproduced signals outputted from the reproduction means; and

a control unit determining an optimum write strategy, based on the measured jitters.

14. (Previously Presented) The optimal recording apparatus according to claim 13, wherein the recording unit is adapted to adjust a focusing distance between the optical recording medium and an optical pick-up used in association with the optical recording medium.

15. (Previously Presented) The optimal recording apparatus according to claim 13, further comprising:

an extraction unit extracting a reference power value recorded on a predetermined region of the optical recording medium,

wherein the recording unit is adapted to vary the recording signal format with reference to the extracted reference power value.

16. (Previously Presented) The optimal recording apparatus according to claim 13, wherein the jitter measuring means comprises:

a detection unit detecting a signal of specific length components from each of the reproduced signals, and detecting an inter-edge temporal difference of the length component signal from a reference signal;

an integration unit deriving respective inter-edge temporal difference values at leading and trailing edges of the length component signal, based on an output signal from the detection unit, and outputting the derived values as integrated signals, respectively; and

a jitter calculation unit calculating a jitter of the reproduced signal, based on a signal indicative of a difference between the integrated signals.

17. (Previously Presented) An optical recording medium having a test area for recording test data thereon, wherein the test area comprises:

a first field on which a value of a factor having an influence on recording characteristics is recorded, as test data, while being varied; and

at least one second field on which a value of another factor having an influence on the recording characteristics is recorded, as test data, while being varied,

wherein the value of another factor includes a format of recording pulse for a determination of a recording signal format involving an optimum recording condition.

18. (Previously Presented) The optical recording medium according to claim 17, wherein the first field is a field on which a recording power value is recorded, as test data, while being varied, for a detection of an optimum recording power.

19. (Currently Amended) The optical recording medium according to claim 17, wherein the format of recording ~~pulses~~ pulse recorded on the second field includes width and/or level of recording pulses.

20. (Previously Presented) An optimal recording method for optical recording media comprising the steps of:

recording test data onto a test area of an optical recording medium while varying a format of recording signals, and reproducing test data;

measuring respective jitters of reproduced signals; and

determining an optimum write strategy based on the measured jitters.

21. (Previously Presented) The method of claim 20, wherein the varying step adjusts a focusing distance between the optical recording medium and an optical pick-up used in association with the optical recording medium.

22. (Previously Presented) The method of claim 20, further comprising:

extracting a reference power value recorded on a predetermined region of the optical recording medium, wherein the varying step varies the recording format with respect to the extracted reference power value.

23. (Previously Presented) The method of claim 20, wherein the measuring step measures jitters of a specific component among reproduced signals.

24. (Previously Presented) The method of claim 23, wherein the specific component is $3T$, where T is channel clock period.

25. (Previously Presented) The method of claim 20, wherein the determining step determines the write strategy associated with the reproduced signal involving the smallest jitter to be the optimum write strategy.

26. (Previously Presented) The method of claim 12, wherein step (c) determines the optimum recording power value based on a modulation degree for the signal characteristics from the reproduced signals.

27. (Previously Presented) The method of claim 12, wherein step (c) determines the optimum recording power value based on asymmetries of the reproduced signals.

28. (Previously Presented) The method of claim 12, wherein step (e) determines the write strategy associated with the reproduced signal involving the smallest jitter to be the optimum write strategy.